

REMARKS

Status of Claims

Claims 1-7, 15-20, 28, 30-33, 40-46, and 61-67 are currently pending in the present application. Applicants have herein amended claims 1, 16, 28, 31, 33, 61, 62-63, and 67.

Response to the Written Description Rejection

In the August 29, 2005 Office Action, the Examiner finalized the rejections against claims 1-7, 15-20, 28, 30-33, 40-46, 61-67 of the present application for alleged lack of written description under 35 USC §112, first paragraph, asserting that such claims contain subject matter that was not sufficiently described in the specification. Specifically, the Examiner contended that the specification only discloses one nucleic acid molecule with SEQ ID NO: 3 that meets the recited functional and structural limitations and therefore fails to describe a representative number of species by their complete structure and other identifying characteristics to support the claimed genus of nucleic acid molecules.

In response, Applicants have hereby amended claim 1 (from which claims 2-7, 15-20, and 40-46 depend) to positively recite a nucleic acid molecule that "comprises SEQ ID NO: 3." Support for such claim amendment can be found throughout the instant specification. Further, Applicants have amended claim 28 (from which claims 30-33 depend) and claim 61 (from which claims 62-67 depend) to positively recite a nucleic acid molecule that "is at least 95% identical with SEQ ID NO: 3." Support for such claim amendments can be found in the instant specification on page 16, lines 7-22, which describes a nucleotide sequence having at least 95% similarity to the sequence set forth in Figure 6 (SEQ ID NO:3).

The amended claims 1-7, 15-20, and 40-46, which recite a nucleic acid molecule that comprises SEQ ID NO: 3, are supported by the detailed description of SEQ ID NO: 3 in the instant specification.

Therefore, the written description requirement under 35 USC §112, first paragraph is satisfied with respect to the amended claims 1-7, 15-20, and 40-46.

The amended claims 28, 30-33, and 61-67 recite a nucleic acid molecule that is at least 95% identical with SEQ ID NO: 3 and is capable of replicating, acting as an extra-chromosomal element and segregating with cell division when introduced into a cell. Such a nucleic acid is supported by the description in the instant specification of a single nucleic acid species (SEQ ID NO: 3) having the specified capability, according to the Revised Interim Written Description Guidelines issued by the USPTO (hereinafter "Guidelines").

Specifically, the Guidelines discuss, on pages 53-55, an example in which the claim is directed to a protein having 95% identity to a specified amino acid sequence as well as having a specified catalytic activity, while the specification discloses a single protein having the specified amino acid sequence and the specified catalytic activity. The Guidelines find that disclosure of a single protein species having a specific amino acid sequence and a specific catalytic activity provides sufficient written description for a claim that encompasses a group of proteins that have at least 95% identity to the specified amino acid sequence and having the specified catalytic activity.

In the present case, the amended claims 28, 30-33, and 61-67 encompass a group of nucleic acid molecules that have at least 95% identity to SEQ ID NO: 3, which also have the capability of replicating, acting as an extra-chromosomal element and segregating with cell division when introduced into a cell. In other words, this group of nucleic acid molecules recited by claims 28, 30-33, and 61-67 are limited by both the 95% sequence identity and the specified functionality and do not have significant variation.

Therefore, the recited group of nucleic acid molecules by claims 28, 30-33, and 61-67 of the present application are adequately represented and supported by the single nucleic acid molecule of SEQ ID NO: 3 disclosed by the instant specification, consistent with the findings of the Guidelines in Example 14 thereof.

Correspondingly, Applicants request the Examiner to withdraw the written description rejections of claims 1-7, 15-20, 28, 30-33, 40-46, and 61-67.

Response to the Indefiniteness Rejections

In the June 29, 2005 Final Office Action, the Examiner rejected claims 1, 31, 33, 62, 63, and 67 for alleged indefiniteness under 35 USC §112, second paragraph. Specifically, the Examiner asserted that such claims recite the term "derived," which renders the claims indefinite because the nature and number of derivative process is unknown.

In response, Applicants have hereby amended claims 1, 31, 33, 62, 63, and 67, by changing the phrase "is derived from" to "comprises a region of." Support for such amendments is found in the instant specification on page 3, lines 22-26.

The amended claims 1, 31, 33, 62, 63, and 67 therefore overcome the indefiniteness rejections.

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CONCLUSION

Based on the foregoing, claims 1-7, 15-20, 28, 30-33, 40-46, and 61-67, as amended herein, are in condition for allowance. Issue of a Notice of Allowance for the application is therefore requested.

If any issues remain outstanding, incident to the formal allowance of the application, the Examiner is requested to contact the undersigned attorney at (516) 742-4343 to discuss same, in order that this application may be allowed and passed to issue at an early date.

Respectfully submitted,



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